

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

DIATEK LICENSING LLC,

Plaintiff,

v.

ACCUWEATHER, INC.,

Defendant.

CIVIL ACTION

NO. 1:21-cv-11144-JPC

Jury Trial Demanded

SECOND AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Diatek Licensing LLC (“Plaintiff”) files this Second Amended Complaint for Patent Infringement against Defendant, and states as follows:

THE PARTIES

1. Plaintiff is a limited liability company organized and existing under the laws of the State of Texas, having its principal office at 3571 Far West Blvd, #3406, Austin, TX 78731.

2. Defendant AccuWeather, Inc. (“Defendant”) is a corporation organized under the laws of the State of Pennsylvania. On information and belief, Defendant has a regular and established place of business at 250 Greenwich Street, 32nd Floor, New York, NY 10007. Upon information and belief, Defendant makes, uses, offers to sell, sells, and/or imports products and services throughout the United States, including in this judicial district.

JURISDICTION AND VENUE

3. This Court has exclusive subject matter jurisdiction over this case pursuant to 28 U.S.C. §§ 1331 and 1338(a) on the grounds that this action arises under the Patent Laws of the United States, 35 U.S.C. § 1 et seq., including, without limitation, 35 U.S.C. §§ 271, 281, 284, and 285.

4. This Court has specific personal jurisdiction over Defendant, consistent with due process. On information and belief, Defendant has a regular and established place of business in the State of New York. Further, Defendant has minimum contacts with the State of New York, and Defendant has purposefully availed itself of the privileges of conducting business in the State of New York.

5. Venue is proper in this Court pursuant to 28 U.S.C. § 1400(b) on the grounds that, on information and belief, Defendant has a regular and established place of business and has committed acts of infringement in this judicial district.

FACTUAL BACKGROUND

U.S. Patent No. 7,079,752

6. Plaintiff is the owner by assignment of all right, title, and interest in and to United States Patent No. 7,079,752, entitled “Process for Recording a Scrambled MPEG Stream” (“the ’752 patent”), including the right to sue for all past, present, and future infringement, which assignment was duly recorded in the USPTO.

7. A true and correct copy of the ’752 patent is attached hereto as Exhibit A. The ’752 patent is incorporated herein by reference.

8. A true and correct copy of the prosecution history for the ’752 patent is attached hereto as Exhibit B and is incorporated herein by reference.

9. The application that became the ’752 patent was filed on November 20, 2000.

10. The ’752 patent issued on July 18, 2006, after a full and fair examination by the USPTO.

11. The ’752 patent is, and is legally presumed to be, valid, enforceable and directed to patent-eligible subject matter.

12. The elements recited in the asserted claims of the '752 patent were not well-understood, routine, or conventional when the application that became the '752 patent was filed. The United States Patent & Trademark Office determined that the claims of the '752 patent were allowable over the prior art of record after a full and fair examination.

13. The claims of the '752 patent, including claim 1, are directed to technical solutions to technical problems involved in allowing the use of trick mode when reading audio-video data recorded in scrambled form.

14. The '752 patent states that the field of the invention “relates to a process for recording on a recording medium, for example a hard disk, a scrambled audio video digital data stream, for example an MPEG type stream.” '752 patent at 1:6-9. The '752 patent further describes that the invention “also relates to the process for implementing the special mode or ‘trick mode’ function (fast forward, fast rewind, accelerated motion, slow motion, etc.) on the basis of the reading of data stored on a recording medium which consists in reading additional data from the recording medium which includes information required by the special mode and in then reading the data of the medium as a function of these additional data. These data are, for example, pointers to the start of images and to the types of images.” '752 patent at 6:34-42.

15. The '752 patent goes on to state that “[t]he storage of data in scrambled form is currently developing rapidly. For example, the audio video digital data transmitted in compressed and scrambled form are generally recorded in this form so as to control access to these data. They are therefore descrambled only when the corresponding images are viewed. Another example relates to the 1394 digital bus, solutions envisaged within the framework of the exploitation of this digital bus being the transmission of digital data in scrambled form and hence their storage in this form.” '752 patent at 1:13-22.

16. The '752 patent identifies a problem that existed in the art prior to the filing of the application leading to the issuance of the '752 patent: "A problem connected with this recording of digital video data streams in scrambled form relates to the exploitation of particular modes of reading or special modes referred to hereinafter as the 'trick mode', using the terminology of the MPEG standard, this term encompassing among other things the following functions: fast forward, fast rewind, slow motion, accelerated motion, freeze frame. These functions actually require access and fast decoding of these recorded data, conditions which are difficult to make compatible with recording in scrambled mode." '752 patent at 1:23-32.

17. The '752 patent also states that "[t]he aim of the invention is to alleviate the aforesaid drawbacks." '752 patent at 1:36-37.

18. The '752 patent states that the subject of the invention that alleviates the aforesaid drawbacks involves "a process for recording, on a recording medium, a scrambled MPEG stream, characterized in that the scrambled data of the stream are, in parallel with their recording, descrambled so as to extract therefrom additional data corresponding to information required by at least one function of the special mode or 'trick mode' (fast forward, fast rewind, accelerated motion, slow motion, etc.) and in that these additional data are also recorded on the recording medium." '752 patent at 1:38-46. The '752 patent also states that one embodiment of the invention involves "a recording medium, characterized in that it contains the data of a scrambled MPEG stream as well as additional data relating to the video data of the stream for the operation of the special mode or 'trick mode'." '752 patent at 1:49-53.

19. The '752 patent states that the additional data can be, for example, "the pointers and the size of images." '752 patent at 1:47-48.

20. The '752 patent further describes the technical problem addressed by the technical solution provided by the disclosed and claimed invention: "By virtue of the invention, the information required by the special modes are directly exploitable without it being necessary to descramble the recorded data in order to retrieve or calculate this information, thus allowing a fast response to the commands of the operator." '752 patent at 2:21-25.

21. The '752 patent further describes the technical solution provided by the disclosed and claimed invention in this way: "The main advantage of the invention is that it allows the use of the trick mode when reading audio and video data recorded in scrambled form." '752 patent at 2:26-28.

22. The '752 patent explains embodiments for performing the claimed method, including in the section of the '752 patent titled, "Detailed Description of the Preferred Embodiments." *See, e.g.*, '752 patent at 2:30-40; 2:45-5:35; Figs. 1 & 2.

23. For example, Figures 1 and 2 of the '752 patent, along with the accompanying description in the specification, describe embodiments for practicing the disclosed and claimed invention. '752 patent at 2:30-40; 2:45-5:35; Figs. 1 & 2.

24. The '752 patent also describes additional embodiments of the disclosed invention. *See* '752 patent at 5:44-6:47.

25. For example, the '752 patent describes one embodiment for extracting information, "referred to as ancillary data or additional data, required for the operation of the 'trick mode'. This information may, among other things, be the size of the images, the pointers defining the image starts, the image types, etc." '752 patent at 3:14-20.

26. In accordance with this particular embodiment, the '752 patent describes that, "These data are organized so as to construct, during step **5**, a file accompanying the audio video

file consisting of the recorded scrambled data relating to the partial stream. The next step 6 consists in recording this accompanying file on the medium. It may also involve the construction of a succession of files, the data relating to the ‘trick mode’ then being recorded in tandem with the recording of the scrambled data.” ’752 patent at 3:20-28.

27. The specification of the ’752 patent, including the embodiments disclosed therein (including those referred to in the preceding paragraphs), would have enabled a person of ordinary skill in the art at the time of the invention to practice the claims of the ’752 patent without undue experimentation. This is evidenced, for example, by the fact that the Patent Examiner did not reject the claims for failing to comply with the enablement requirement of 35 U.S.C. § 112. Had the claims failed to comply with the enablement requirement, the Examiner would have rejected the claims on that ground. Patent Examiners are presumed to have done their job in allowing patents. *See, e.g., Brooktree Corp. v. Advanced Micro Devices, Inc.*, 977 F.2d 1555, 1574 (Fed. Cir. 1992).

28. The claims of the ’752 patent recite inventions claiming one or more of the inventive technical solutions disclosed in the ’752 patent. For example, claims 1 and 14 of the ’752 patent, by reciting the following steps, are directed to inventive technical solutions to a technical problem disclosed in the ’752 patent:

1. A process for recording, on a recording medium, a scrambled digital video stream, implementing the following steps, in addition to the recording of the scrambled data:

descrambling of said scrambled data of said stream so as to extract therefrom additional data corresponding to information required by at least one function of the special mode or “trick mode” (fast forward, fast rewind, accelerated motion, slow motion, etc.); and

recording of these additional data on the recording medium.

14. A process for decoding a scrambled MPEG stream recorded on a recording medium, for implementing a special mode (“trick mode”), comprising the following steps:

reading, from the recording medium, of scrambled data of the MPEG stream,

reading, from the recording medium, of additional data other than the scrambled data of the MPEG stream, having a time correspondence with the scrambled data and corresponding to information relating to the enciphering keys used for the scrambling,

descrambling of the MPEG stream data read as a function of the additional data read.

29. The claims of the ’752 patent, including claims 1 and 14, were not well-understood, routine, or conventional activities known to the industry before the priority date of the ’752 patent. Rather, the claims of the ’752 patent, including claims 1 and 14, represent a significant advancement over the prior art. This is evidenced, for example, by the ’752 patent’s discussion of the problems in the art and the disclosed solution to those problems, including the passages quoted herein. It is also evidenced by the PTO’s decision to allow the claims of the ’752 patent. Ex. B at 214 of 220 (March 9, 2006, Notice of Allowance).

30. The claims of the ’752 patent, including claims 1 and 14 specifically, are not merely directed to the idea of data manipulation. Nor are the claims, including claims 1 and 14 specifically, merely directed to descrambling, extracting, recording, and transmitting video data through the use of a generic computer. This is evidenced by the language of the claims, including claim 1 (quoted above). For example, claim 1 recites, among other things, “descrambling of said scrambled data of said stream so as to extract therefrom additional data corresponding to information required by at least one function of the special mode or ‘trick mode’ (fast forward, fast rewind, accelerated motion, slow motion, etc.).” As further example, claim 14 recites, among other things, “reading, from the recording medium, of additional data other than the scrambled

data of the MPEG stream, having a time correspondence with the scrambled data and corresponding to information relating to the enciphering keys used for the scrambling.”

31. The ’752 patent teaches that the claimed invention addresses a technical shortcoming in the art, thereby permitting the exploitation of trick modes of operation, which require access and fast decoding of recorded data, compatible with recording in a scrambled mode. ’752 patent at 1:23-37. Thus, the ’752 patent claims particular technical solutions to address technical problems described in the ’752 patent.

32. The inventions recited in the claims of the ’752 patent, including claims 1 and 14 specifically, were not long-used by individuals prior to the advent of computers. Nor do the inventions recited in the claims of the ’752 patent, including claims 1 and 14 specifically, merely claim the fundamental practice of data manipulation and having it performed on a computer. As discussed above, the claims of the ’752 patent, including claims 1 and 14 specifically, recite technical solutions permitting the use of trick modes of operation in connection with a scrambled digital video stream that were not used prior to the advent of computers. The ’752 patent expressly teaches that this solves a problem in the existing state of the technology. *See, e.g.*, ’752 patent at 1:23-37.

33. The inventions recited in the claims of the ’752 patent were not utilized prior to the advent of computers, or prior to the filing of the application leading to the ’752 patent. This is evidenced, for example, by the fact that the claims of the ’752 patent were allowed by the U.S. Patent & Trademark Office after a full and fair examination. Ex. B at 214 of 220 (March 9, 2006, Notice of Allowance).

34. The inventions recited in the claims of the ’752 patent do not merely claim trick modes of operation. Rather, as discussed above, they claim a technical solution to technical

problems encountered in attempting to provide trick modes of operation in conjunction with a scrambled digital video stream.

35. Traditional VHS players do not involve a digital video stream. Rather, VHS, short for Video Home System, utilized analog video recording. Moreover, traditional VHS players did not practice the inventions recited in the claims of the '752 patent. Indeed, a traditional VHS player did not practice any element of claim 1 of the '752 patent.

36. The existing art at the time of filing of the '752 patent was developing rapidly as it related to the storage of data in scrambled form. '752 patent at 1:13-14. However, as the '752 patent describes, the existing art was *not* adapted to provide trick modes of operation for data streams recorded in scrambled form: "A problem connected with this recording of digital video data streams in scrambled form relates to the exploitation of particular modes of reading or special modes referred to hereinafter as the 'trick mode', using the terminology of the MPEG standard, this term encompassing among other things the following functions: fast forward, fast rewind, slow motion, accelerated motion, freeze frame." '752 patent at 1:23-29. As the '752 patent further explained, this is because such trick-mode functions "actually require[] access and fast decoding of these recorded data, conditions which are difficult to make compatible with recording in scrambled mode." *Id.* at 1:29-32. This problem is addressed by the inventions claimed in the '752 patent.

37. Claim 1 of the '752 patent recites a method that addresses this problem. In particular, claim 1 recites "descrambling of said scrambled data of said stream so as to extract therefrom additional data corresponding to information required by at least one function of the special mode or 'trick mode' (fast forward, fast rewind, accelerated motion, slow motion, etc.)." As recited in claim 1, the "additional data" must correspond to information required by at least

one function of the special mode or trick mode. Thus, claim 1 does not merely recite a result, but it recites a specific solution involving the use of additional data corresponding to information required by at least one function of the special mode or trick mode.

38. Claim 14 recites an even more specific method that addresses this problem. In particular, claim 14 recites “reading, from the recording medium, of additional data other than the scrambled data of the MPEG stream, having a time correspondence with the scrambled data and corresponding to information relating to the enciphering keys used for the scrambling.” As recited in claim 14, the “additional data” must have a time correspondence with the scrambled data and correspond to information relating to the enciphering keys used for scrambling the scrambled data of the MPEG stream. Thus, claim 14 does not merely recite a result, but it recites a specific solution involving the use of additional data having a time correspondence with the scrambled data and corresponding to information relating to the enciphering keys used for scrambling the scrambled data of the MPEG stream.

39. The methods recited in claims 1 and 14, and in particular the claim elements quoted in the previous two paragraphs, “ease the descrambling of the data during the ‘trick mode’.” ’752 patent at 4:50-54. Moreover, by virtue of the inventions recited in claims 1 and 14 of the ’752 patent (and in particular the claim elements quoted in Paragraphs 37 and 38 above), “the information required by the special modes are directly exploitable without it being necessary to descramble the recorded data in order to retrieve or calculate this information, thus allowing a fast response to the commands of the operator.” ’752 patent at 2:21-25. As expressly taught by the ’752 patent, this advance provided by the solutions recited claims 1 and 14 improves upon the state of the art existing at the time the ’752 patent was filed.

40. This improvement is achieved by the following limitation of claim 1: “descrambling of said scrambled data of said stream so as to extract therefrom additional data corresponding to information required by at least one function of the special mode or ‘trick mode’” recited in claim 1. As detailed in the allegations below, the specification and prosecution history of the ’752 patent show that the combination of this step with the other recited steps was unconventional at the time of filing of the ’752 patent. Stated differently, and as detailed below, already available computers, with their available functions, did not provide the process recited in claim 1 of the ’752 patent.

41. Similarly, this improvement is achieved by the following limitation of claim 14: “reading, from the recording medium, of additional data other than the scrambled data of the MPEG stream, having a time correspondence with the scrambled data and corresponding to information relating to the enciphering keys used for the scrambling.” As detailed in the allegations below, the specification and prosecution history of the ’752 patent show that the combination of this step with the other recited steps was unconventional at the time of filing of the ’752 patent. Stated differently, and as detailed below, already available computers, with their available functions, did not provide the process recited in claim 14 of the ’752 patent.

42. Claims 1 and 14 limit the structural and functional relationship between the recording medium, the video data stream (claim 1) or MPEG stream (claim 14), and the additional data recited in claims 1 and 14. As discussed below, the Examiner relied on the structural and functional relationships recited in claims 1 and 14 to allow the claims over the prior art.

43. The inventions recited in claims 1 and 14 were not well-understood, routine, or conventional at the time the ’752 patent was filed. As the ’752 patent itself explains in

distinguishing the claimed inventions from the state of the art, the state of the art at the time the '752 patent was filed was not adapted to provide trick mode in conjunction with digital video data streams recorded in scrambled form. '752 patent at 1:23-29.

44. That the inventions recited in claims 1 and 14 were not well-understood, routine, or conventional at the time the '752 patent was filed is also evidenced by the prosecution history of the '752 patent.

45. The U.S. Patent & Trademark Office has stated that the duties of a Patent Examiner include the following:

- Reads and understands the invention set forth in the specification
- Determines whether the application is adequate to define the metes and bounds of the claimed invention
- Determines the scope of the claims
- Searches existing technology for claimed invention
- Determines patentability of the claimed invention

Ex. G at 11, *The Role of the Patent Examiner*, Sue A. Purvis, Innovation and Outreach Coordinator, USPTO, available at

https://www.uspto.gov/sites/default/files/about/offices/ous/04082013_StonyBrookU.pdf.

46. Thus, the Examiner who examined the '752 patent, in accordance with his duties, (1) read and understood the invention set forth in the specification; (2) determined whether the application was adequate to define the metes and bounds of the claimed invention; (3) determined the scope of the claims; (4) searched existing technology for the inventions recited in the claims of the application; and (5) determined the patentability of the claims.

47. The Examiner performed these duties in his role as “advocate/protector of [the] public interest with respect to intellectual property,” which involves a “cooperative investigation between the Examiner and the Applicant, which ensures an Applicant receives a patent only for that which they are entitled to in accordance with Patent laws.” *Id.* at 8-9.

48. During prosecution, the Examiner relied on U.S. Patent No. 5,757,909 (“Park,” Exhibit H), asserting that it anticipated certain claims then pending in the application. The Examiner characterized Park as “disclos[ing] a recording medium (the tape of VCR 9 disclosed in col. 11, lines 35-45 and col. 3, lines 31-38) containing the data of a scrambled digital video stream as well as additional data relating to the video data of the stream for the operation of the special mode or ‘trick mode’.” Ex. B at 164 of 220 (2005-03-22 Non-Final Rejection at ¶ 8).

49. The Examiner further stated that Park disclosed “an MPEG audio video digital data stream (col. 3, lines 3-38), comprising additional data (an adaptation header region disclosed in col. 3, lines 3-38) allowing the extraction of the information required by at least one function of the ‘trick mode’, said additional data being transported in the ‘adaptation field’ of the stream.” *Id.* The Examiner also asserted that “Park discloses a process for recording on a recording medium (the keystreams disclosed in col. 11, lines 35-45), a scrambled digital video stream, wherein the stream is descrambled in such a way as to extract additional data relating to the keys for enciphering this scrambled stream and in that these data are also recorded on the recording medium (col. 11, lines 35-45 and col. 12, line 55 to col. 13, line 9).” *Id.*

50. Park’s disclosure of recording a scrambled digital video stream comes in the context of “an illegal view and copy protection method in a digital video system for preventing an illegal user from viewing the digital video system and copying therefrom.” Ex. H, Park at 1:7-11. Elsewhere, Park states that “the copy protection for digital signals . . . allows a program copyright protection for a DSM such as a DVCR. Therefore, the reliability for illegal view and copy protection is increased.” Ex. H, Park at 15:5-9.

51. While the Examiner initially rejected certain claims over Park in the first office action, he found that “Claims 1-4 would be allowable if rewritten to overcome the objection set

forth in the Office action.” Ex. B at 168 of 220 (2005-03-22 Non-Final Rejection at ¶ 11). The Examiner gave the following reasons for allowing claim 1:

The closest prior art, Park (US 5,757,909), either singularly or in combination, fail to anticipated or render the limitations “wherein the scrambled data of said stream are, in parallel with their recording, descrambled *so as to extract therefrom additional data corresponding to information required by at least one function of the special mode or “trick mode”* (fast forward, fast rewind, accelerated motion, slow motion, etc.) and wherein these additional data are also recorded on the recording medium” as recited in claim 1.

Id. (emphasis added). This shows that claim 1 included an inventive concept and did not merely recite limitations that were well-understood, routine, or conventional.

52. The Examiner initially rejected application claim 19 (which later issued as claim 14 of the '752 patent) based on Park. In response, the applicant amended claim 19 such that it recited “reading, from the recording medium, of additional data other than the scrambled data of the MPEG stream, having a time correspondence with the scrambled data and corresponding to information relating to the enciphering keys used for the scrambling.” Ex. B at page 202 of 220 (Dec. 13, 2005, Amendment After Final at 4). The applicant then analyzed Park’s teachings relevant to this claim language. *Id.* at page 204 of 220 (Dec. 13, 2005, Amendment After Final at 6). The applicant explained, *inter alia*, that “[w]hat Park describes, however, is the reading of scrambled data from a first recording medium which is a conventional DVCR and the reading of additional data from a second recording medium which is a smart card.” *Id.* at pages 204-205 of 220 (Dec. 13, 2005, Amendment After Final at 6-7). The applicant then asserted that Park did not disclose the above-quoted claim element as amended because the claimed invention, unlike Park, “uses the same recording medium.” *Id.* at page 205 of 220 (Dec. 13, 2005, Amendment After Final at 7). The applicant went on to explain that “[t]he use of the same recording medium, a DVCR for example, in Park for the MPEG bitstream and the encrypted keys would not make

sense. In Park, it would be necessary to first read the MPEG bitstream to extract the keys from the bitstream in order to encrypt these keys and store them on the recording medium. The link between the keys and the corresponding scrambled data in the bitstream would be lost and it would not be possible to use the stored keys to descramble the bitstream. Such a solution would not solve the problem of trick play mode, which provides easy access to relevant keys or relevant data relating to keys (relating to the images to be read according to the selected trick mode).” *Id.* at page 205 of 220 (Dec. 13, 2005, Amendment After Final at 7). The Examiner allowed application claim 19 in response to this amendment and explanation by the applicant, and the claim issued as claim 14 of the ’752 patent. *Id.* at 214 of 220 (March 9, 2006 Notice of Allowance). This shows that claim 14 included an inventive concept and did not merely recite limitations that were well-understood, routine, or conventional.

53. The Examiner’s rationale for allowing claims 1 and 14 of the ’752 patent shows that the inventions recited therein were not well-understood, routine, or conventional at the time the ’752 patent was filed.

54. “[U]seful improvements to computer networks are patentable regardless of whether the network is comprised of standard computing equipment.” *Cooperative Entertainment, Inc. v. Kollektive Technology, Inc.*, 50 F.4th 127, 135 (Fed. Cir. 2022).

U.S. Patent No. 8,195,828

55. Plaintiff is the owner by assignment of all right, title, and interest in and to United States Patent No. 8,195,828, entitled “Method for Discontinuous Transmission, in Sections, of Data in a Network of Distributed Stations as well as a Network Subscriber Station as Requesting Appliance for Carrying Out a Method Such as This, and a Network Subscriber Station as a Source Appliance for Carrying Out a Method Such as This” (“the ’828 patent”), including the

right to sue for all past, present, and future infringement, which assignment was duly recorded in the USPTO.

56. A true and correct copy of the '828 patent is attached hereto as Exhibit C. The '828 patent is incorporated herein by reference.

57. The application that became the '828 patent was filed on November 12, 2004.

58. The '828 patent issued on June 5, 2012, after a full and fair examination by the USPTO.

59. A true and correct copy of the prosecution history for the '828 patent is attached hereto as Exhibit D and is incorporated herein by reference.

60. The '828 patent is, and is legally presumed to be, valid and enforceable and directed to eligible subject matter. The United States Patent & Trademark Office determined that the claims of the '828 patent were allowable over the prior art of record after a full and fair examination.

61. The elements recited in the asserted claims of the '828 patent were not well-understood, routine, or conventional when the application that became the '828 patent was filed.

62. The claims of the '828 patent, including claim 1, are directed to technical solutions to technical problems involving the implementation of trick modes in the transmission of data streams.

63. The '828 patent states that the disclosed "invention relates to the technical field of data transmission in a network of distributed stations, in particular in a so-called domestic network. In this case, the data is transmitted discontinuously, in sections." '828 patent at 1:18-21.

64. The '828 patent further states that "A working group of the UPnP forum have worked out the UPnP-AV specification, which builds on the general UPnP specification and

extends it, for application of the UPnP method to AV appliances. In order to transfer AV data (audio/video data) in a domestic network such as this between a so-called server (source appliance) and a so-called renderer appliance (destination appliance), the UPnP-AV specification stipulates that known transmission protocols should be used for transportation of the data. The so-called HTTP-GET method (HTTP stands for Hyper Text Transfer Protocol) and, in addition, the so-called RTP method (RTP stands for Real Time Transport Protocol) are mentioned as known protocols in the specification. These two transport mechanisms are available when the network subscriber stations are linked to one another via Ethernet bus connections.” ’828 patent at 1:40-54.

65. The ’828 patent explains that “The HTTP-GET method is based on the TCP method (Transmission Control Protocol), which is a basic connection-oriented transport protocol, in which protected data transmission (with error correction) takes place. The TCP method is in turn built on the Internet Protocol (IP). The HTTP-GET method was developed especially for the transmission of files (for example HTML web pages) from a web server to a web browser. In consequence, it is not adapted for real-time data transmission in sections, for example as occurs on transmitting audio or video data streams. On the other hand, the HTTP-GET method is widely used and is designed to be very simple for the application programmer, so that it is widely popular.” ’828 patent at 1:55-67.

66. The ’828 patent further explains that “The transport mechanism based on the HTTP-GET method is recommended for the transmission of AV data streams in the UPnP specification. The HTTP-GET method was intended primarily for requesting a resource which is available in the network, which in many cases is an existing file, and then to transmit this entirely in one piece to the destination appliances. In addition, the so-called chunked transfer

encoding method was introduced in HTTP Version 1.1, as well, and this is intended to be used whenever a resource is to be transmitted whose overall length is not yet entirely known at the time when the transmission starts. In this case, the resource should be transmitted in sections but continuously (that is to say without any gaps).” ’828 patent at 2:12-24.

67. The ’828 patent then describes that the disclosed invention improves the state of the art regarding the HTTP-Get method by allowing it to be implemented with trick modes of operation: “Against the background of the described prior art, the object of the invention is to extend the transport mechanism based on the HTTP-GET method such that it is also possible to implement so-called trick modes in the transmission of data streams. Trick modes such as these include, for example in the case of AV data streams, fast forward (searching in the forward direction) and fast reverse (searching in the backward direction).” ’828 patent at 2:28-35.

68. The ’828 patent then describes a technical problem solved by the disclosed and claimed invention: “The invention solves this problem by defining additional parameters for the HTTP-GET method which, for example, relate to the playback speed and playback direction, as well as to the initial position for the playback process.” ’828 patent at 2:35-38.

69. The ’828 patent provides further detail regarding how it improves the technological state of the art as it existed prior to the invention disclosed and claimed in the ’828 patent: “Normally, only individual data blocks are required for the playback process in trick modes such as these, for example only individual video frames are reproduced during a fast forward search through a video film, and other video frames between the reproduced frames are suppressed. Effectively, this therefore results in repeated jumping from one video frame N to a video frame N+X (forward) or N-X (reverse). In order to carry out this discontinuous transmission of the data in sections, it is possible to send out the new type of HTTP GET request

with the additional parameters such as, playback speed and playback direction, as well as the initial position for the playback process. The source device sends the requested data sections for the requested trick mode back with a HTTP Get response.” ’828 patent at 2:39-52.

70. The ’828 patent further explains a technical benefit achieved by an invention disclosed and claimed in the ’828 patent by stating the following: “This invention makes it possible to use the simple transport mechanism HTTP-GET for implementation of trick modes for real-time data transmission as well, in particular for AV data. This invention likewise makes it possible to implement so-called navigation commands which, for example, allow a deliberate jump to a position in the data stream which occurs at a specific time or later, for example 15 minutes later than the current playing time.” ’828 patent at 2:53-60.

71. The ’828 patent also indicates a further technical improvement on the art provided by the disclosed and claimed invention, stating: “One advantageous embodiment of the invention is to use the chunked transfer encoding mode in the HTTP-GET method. Specifically, a data section to be reproduced is always transmitted as a chunk. Also, in this case, the data is not transmitted continuously, that is to say without gaps, and, instead, there are other areas which are omitted between the individual transmitted data sections, that is to say this represents discontinuous data transmission, in sections. The time position of each chunk can also be indicated in a commentary line.” ’828 patent at 2:63-3:6. The ’828 patent teaches that this provides a technical benefit: “This has the advantage of having more time accuracy when the current trick mode is stopped or interrupted by a new type of trick mode request.” ’828 patent at 3:6-8.

72. The ’828 patent discloses specific embodiments for performing the claimed method, including in the section of the ’828 patent titled, “Detailed Description of the

Invention.” *See, e.g.*, ’828 patent at 3:58-8:8; Figs. 1-8. This includes, for example, an exemplary format of an HTTP-GET request and response in accordance with the disclosed invention. ’828 patent at Fig. 2; Fig. 5; 4:55-5:18; 6:13-35.

73. The claims of the ’828 patent recite inventions claiming one or more of the technical solutions disclosed in the ’828 patent, including claim 1, which is set forth below:

1. A method for discontinuous transmission, in sections, of encoded video data in a network of distributed appliances, the method comprising the following steps:

creation of an HTTP GET request for requesting a fast search operation of an original video stream, the request stating a playback speed parameter and an initial position and optionally at least one parameter selected from a group of parameters consisting of file name, file type, path, and playback direction;

transmission of the HTTP GET request to a source appliance; and

discontinuous transmission, in sections, of selected video frames of an original encoded video stream from the source appliance to a destination appliance in a HTTP response using an extended HTTP chunked transfer encoding mode, in which the selected encoded video frames for the fast search operation are transported in respective chunks, wherein each chunk includes one complete respective selected encoded video frame in a second part and information about a starting time, as located in the original encoded video stream, of the respective selected video frame in a first part, wherein the second part is different from the first part and the information about a starting time of the respective selected video frame being positioned in a commentary line of the first part.

74. The claims of the ’828 patent, including claim 1, were not well-understood, routine, or conventional activities known to the industry before the priority date of the ’828 patent. Rather, the claims of the ’828 patent, including claim 1, represent a significant advancement over the prior art. This is evidenced, for example, by the ’828 patent’s discussion of the problems in the art and the disclosed solution to those problems, including the passages quoted herein. It is also evidenced by the PTO’s decision to allow the claims of the ’828 patent. Ex. D at 585 of 611 (Feb. 14, 2012, Notice of Allowance).

75. The claims of the ’828 patent, including claim 1 specifically, are not merely directed to the idea of data manipulation. Nor are the claims, including claim 1 specifically,

merely directed to descrambling, extracting, recording, and transmitting video data through the use of a generic computer. This is evidenced by the language of the claims, including claim 1 (quoted above).

76. The claimed inventions of the '828 patent, including claim 1, address a technical shortcoming in the art. As explained in the '828 patent, the existing state of the art at the time the '828 patent was filed did “not support discontinuous transmission, in sections, of data, as is required, for example, in the case of trick modes (search processes) for a video film.” '828 patent at Abstract.

77. The invention recited in claim 1 of the '828 patent permitted the extension of “the transport mechanism based on the HTTP-GET method such that it is also possible to implement so-called trick modes in the transmission of data streams.” '828 patent at 2:28-32. In particular, the invention recited in claim 1 “solves this problem by defining additional parameters for the HTTP-GET method which, for example, relate to the playback speed and playback direction, as well as to the initial position for the playback process.” '828 patent at 2:35-38; *see also* 2:39-52; 2:53-60; and 2:63-3:8. Thus, the '828 patent claims particular technical solutions to address technical problems described in the '828 patent.

78. The '828 patent provides the following technological advance in the state of the art: “an advantageous embodiment of the invention is to use the chunked transfer encoding mode in the HTTP-GET method. Specifically, a data section to be reproduced is always transmitted as a chunk. Also, in this case, the data is not transmitted continuously, that is to say without gaps, and, instead, there are other areas which are omitted between the individual transmitted data sections, that is to say this represents discontinuous data transmission, in sections. The time position of each chunk can also be indicated in a commentary line. This has the advantage of

having more time accuracy when the current trick mode is stopped or interrupted by a new type of trick mode request.” *Id.* at 2:64-3:8.

79. Claim 1 is directed to the advantages recited in this passage, including specifically the following claim elements recited in claim 1, which specifically recite how the claimed invention is able to achieve these technical benefits: “creation of an HTTP GET request for requesting a fast search operation of an original video stream, the request stating a playback speed parameter and an initial position and optionally at least one parameter selected from a group of parameters consisting of file name, file type, path, and playback direction” and “discontinuous transmission, in sections, of selected video frames of an original encoded video stream from the source appliance to a destination appliance in a HTTP response using an extended HTTP chunked transfer encoding mode, in which the selected encoded video frames for the fast search operation are transported in respective chunks, wherein each chunk includes one complete respective selected encoded video frame in a second part and information about a starting time, as located in the original encoded video stream, of the respective selected video frame in a first part, wherein the second part is different from the first part and the information about a starting time of the respective selected video frame being positioned in a commentary line of the first part.”

80. The claim limitations quoted in the previous paragraph expressly recite improvements to the HTTP GET method that allow the claimed invention to improve the existing state of the art and solve the technological problem described in the specification of the ’828 patent. *See, e.g.*, ’828 patent at 2:64-3:8

81. Claim 1 limits the structural and functional relationship between the HTTP GET request and the extended HTTP chunked transfer encoding mode, including reciting limitations

on the structure of the HTTP GET request and the structure of each chunk transmitted using the recited discontinuous transmission. The HTTP GET request must “stat[e] a playback speed parameter and an initial position and optionally at least one parameter selected from a group of parameters consisting of file name, file type, path, and playback direction.” Each chunk must include “one complete respective selected encoded video frame in a second part and information about a starting time, as located in the original encoded video stream, of the respective selected video frame in a first part, wherein the second part is different from the first part and the information about a starting time of the respective selected video frame being positioned in a commentary line of the first part.”

82. The inventions recited in the claims of the ’828 patent, including claim 1 specifically, were not long-used by individuals prior to the advent of computers. Nor do the inventions recited in the claims of the ’828 patent, including claim 1 specifically, merely claim the fundamental practice of data manipulation and having it performed on a computer. As discussed above, the claims of the ’828 patent, including claim 1 specifically, recite technical solutions permitting the extension of “the transport mechanism based on the HTTP-GET method such that it is also possible to implement so-called trick modes in the transmission of data streams.” ’828 patent at 2:28-32. The ’828 patent expressly teaches that this solves a problem in the existing state of the technology. *See, e.g.*, ’828 patent at 2:35-38; 2:53-60.

83. Claim 1 of the ’828 patent recites a specific technical solution to problems in the existing art described in the ’828 patent (e.g., that the existing art did “not support discontinuous transmission, in sections, of data, as is required, for example, in the case of trick modes (search processes) for a video film,” as stated in the ’828 patent at Abstract). The written description of the ’828 patent is adequate to enable a person of ordinary skill in the art how to practice the

invention recited in claim 1 without undue experimentation. For example, as noted above, the '828 patent discloses specific embodiments for performing the claimed method, including in the section of the '828 patent titled, "Detailed Description of the Invention." *See, e.g.*, '828 patent at 3:58-8:8; Figs. 1-8. This includes, for example, an exemplary format of an HTTP-GET request and response in accordance with the disclosed invention. '828 patent at Fig. 2; Fig. 5; 4:55-5:18; 6:13-35. '828 patent at Fig. 2; Fig. 5; 4:55-5:18; 6:13-35.

84. That the '828 patent enables a person of ordinary skill in the art to practice the claimed invention is evidenced by the fact that the Patent Examiner did not reject the claim for failing to comply with the enablement requirement of 35 U.S.C. § 112. The patent laws do not require that a claim contain all detail for how to implement the claimed invention. The enablement requirement is judged based on the written description, not on the claims alone.

85. The inventions recited in the claims of the '828 patent were not utilized prior to the advent of computers, or prior to the filing of the application leading to the '828 patent. This is evidenced, for example, by the fact that the claims of the '828 patent were allowed by the U.S. Patent & Trademark Office after a full and fair examination. Ex. D at 585 of 611 (Feb. 14, 2012, Notice of Allowance).

86. The inventions recited in the claims of the '828 patent do not merely claim trick modes of operation. Rather, as discussed above, they claim a technical solution to technical problems, thereby permitting the extension of "the transport mechanism based on the HTTP-GET method such that it is also possible to implement so-called trick modes in the transmission of data streams." '828 patent at 2:28-32.

87. Traditional VHS players do not involve a method for discontinuous transmission, in sections, of encoded video data in a network of distributed appliances. Rather, VHS, short for

Video Home System, utilized analog video recording. Moreover, traditional VHS players did not practice the inventions recited in the claims of the '828 patent. Indeed, a traditional VHS player did not practice any element of claim 1 of the '828 patent.

88. The Examiner who examined the '828 patent (1) read and understood the invention set forth in the specification; (2) determined whether the application was adequate to define the metes and bounds of the claimed invention; (3) determined the scope of the claims; (4) searched existing technology for the inventions recited in the claims of the application; and (5) determined the patentability of the claims. Ex. G at 11.

89. The Examiner performed these duties in his role as “advocate/protector of [the] public interest with respect to intellectual property,” which involves a “cooperative investigation between the Examiner and the Applicant, which ensures an Applicant receives a patent only for that which they are entitled to in accordance with Patent laws.” *Id.* at 8-9.

90. The Examiner who examined the '828 patent rejected the claims of the application several times before ultimately allowing the '828 patent to issue. Ex. D at 110-122 (2008-03-24 Non-Final Rejection), at 184-193 (2008-11-28 Final Rejection), at 224-235 (2009-07-06 Non-Final Rejection), at 253-262 (2010-01-11 Final Rejection), and at 288-300 (2011-01-21 Final Rejection). As part of the cooperative investigation between the applicant and the Examiner, the applicant amended claim 1 several times in response to the Examiner's rejections, as also reflected in Exhibit D.

91. The Examiner's last rejection of the claims was in a January 21, 2011, Office Action in which he rejected claim 1 as allegedly being obvious over U.S. Patent Publication No. 2003/0236907 (“Stewart”) in view of U.S. Patent No. 6,141,358 (“Hurst”) and further in view of U.S. Patent No. 6,065,050 (“DeMoney”). Ex. D at 293.

92. The applicant responded in an Amendment dated April 20, 2011. In that amendment, the applicant presented amendments to claim 1 in response to the Examiner's most recent rejection as shown below (showing additions to the claim in underline and deletions in strikethrough):

1. (Currently Amended) A method for discontinuous transmission, in sections, of encoded video data in a network of distributed appliances, the method comprising the following steps:

creation of an HTTP GET request for requesting a fast search operation of an original video stream, the request stating a playback speed parameter and an initial position and optionally at least one parameter selected from a group of parameters consisting of file name, file type, path, and playback direction, ~~and initial position~~;

transmission of the HTTP GET request to a source appliance; and

discontinuous transmission, in sections, of selected video frames of an original encoded video stream from the source appliance to a destination appliance in a HTTP response using an extended HTTP chunked transfer encoding mode, in which the selected encoded video frames for the fast search operation are transported in respective chunks, wherein each chunk includes one complete respective selected encoded video frame in a ~~first~~ second part and information about a starting time, as located in the original encoded video stream, of the respective selected video frame in a ~~second~~ first part, wherein the second part is different from the first part and the information about a starting time of the respective selected video frame being positioned in a commentary line of the first part.

Ex. D at 306 (2011-04-20 Amendment at 2).

93. The applicant explained that "Claims 1, 13 and 15 are amended by Applicant. Claims 1 and 13 have been amended to clarify that the information about a starting time, as located in the original video stream, of the respective selected video frame is positioned in a commentary line of the first part." *Id.* at 310 (2011-04-20 Amendment at 6).

94. The applicant further noted that "To render a claim unpatentable, however, the Office must do more than merely 'consider' *each and every feature for this claim*. Instead, the

asserted combination of the patents must also teach or suggest each and every claim feature. . . .

Indeed, as the Board of Patent Appeals and Interferences has confirmed, a proper obviousness determination requires that an Examiner make ‘a searching comparison of the claimed invention – *including all its limitations* – with the teaching of the prior art.’ *Id.*

95. The Examiner’s rejection of claim 1 did not establish that claim 1 was obvious over the cited art for at least the following reasons (as the Applicant explained):

The present claimed arrangement provides a method for discontinuous transmission, in sections, of encoded video data in a network of distributed appliances. An HTTP GET request is created for requesting a fast search operation of an original video stream. The request states a playback speed parameter, an initial position and optionally at least one parameter selected from a group of parameters consisting of file name, file type, path, and playback direction. The HTTP GET request is transmitted to a source appliance. Selected video frames of an original encoded video stream are discontinuously transmitted, in sections, from the source appliance to a destination appliance in a HTTP response using an extended HTTP chunked transfer encoding mode. The selected encoded video frames for the fast search operation are transported in respective chunks. Each chunk includes one complete respective selected encoded video frame in a second part and information about a starting time, as located in the original encoded video stream, of the respective selected video frame in a first part. The second part is different from the first part and the information about a starting time of the respective selected video frame is positioned in a commentary line of the first part. For the reasons presented below, Applicant respectfully submits that Stewart, Hurst and DeMoney, taken alone or in any combination, fail to teach or suggest each feature of the present claimed arrangement.

Stewart describes a method and computer readable media for communicating via a connection between a streaming server and a client without breaking the connection. Data is streamed from a server to a client via an established connection. Commands can be communicated to the server and streaming can continue without breaking the connection (see Abstract).

However, Stewart fails to teach or suggest "discontinuous transmission, in sections, of selected video frames of an original encoded video stream from the source appliance to a destination appliance in a HTTP response using an extended HTTP chunked transfer encoding mode, in which the selected encoded video frames for the fast search operation are transported in respective chunks, wherein each chunk includes one complete respective selected encoded video frame in a second part and information about a starting time, as located in the original encoded video stream, of the respective selected video frame in a first part, wherein the second part is different from the first part and the information about a

starting time of the respective selected video frame being positioned in a commentary line of the first part" as recited in amended claim 1 of the present arrangement. The present claimed arrangement advantageously has the time position from the original stream constantly available in the receiver in a higher layer, so that there is no need for fully or partly decoding the whole stream to figure out the time position. When a switch is made to a different search mode, the transition between the two modes can be made in time accurate fashion easily and abrupt jumps in the video can be avoided. Additionally, for clarification, please note that the chunk with the video frame information in that response is only depicted at the end of this response starting with the length information about the chunk which is IEAEO (see Specification, page 12). The other chunks are indicated by a dotted line. This is also evident from Figure 5 of the application, where further chunks are illustrated up to the last chunk which has the length information of 0. Stewart describes streaming data from a server to a client after the server receives a HTTP GET request. However, unlike the present claimed arrangement, Stewart is silent regarding the insertion of time position in a commentary line during chunked transfer encoding mode and thus cannot teach or suggest "the information about a starting time of the respective selected video frame being positioned in a commentary line of the first part" as recited in amended claim 1 of the present arrangement.

In addition, the Office Action concedes that Stewart does not teach or suggest that each chunk includes one complete frame, that the response data includes information about a starting time, as located in the original video stream, of the respective selected video frame in a second part of the chunk, or that the video is encoded. Therefore, Stewart cannot teach or suggest "discontinuous transmission, in sections, of selected video frames of an original encoded video stream from the source appliance to a destination appliance in a HTTP response using an extended HTTP chunked transfer encoding mode, in which the selected encoded video frames for the fast search operation are transported in respective chunks, wherein each chunk includes one complete respective selected encoded video frame in a second part and information about a starting time, as located in the original encoded video stream, of the respective selected video frame in a first part, wherein the second part is different from the first part and the information about a starting time of the respective selected video frame being positioned in a commentary line of the first part" as recited in amended claim 1 of the present arrangement. The Office Action cites Hurst and DeMoney in support of the assertion that the claimed feature is taught when Hurst and DeMoney are combined with Stewart. Applicant respectfully disagrees.

Hurst describes a method and an apparatus for incorporating one or more relatively low bitrate information streams into a relatively high bitrate information stream in a manner aligning low bitrate sub-stream splice entrance points and splice exit points within the frame boundaries of the high bitrate information stream. The splicing of the relatively high bitrate information stream at appropriate In Frames and Out Frames will provide relatively seamless splicing of information sub-streams (see Abstract).

However, Hurst, similar to Stewart, fails to teach or suggest "discontinuous transmission, in sections, of selected video frames of an original encoded video stream from the source appliance to a destination appliance in a HTTP response using an extended HTTP chunked transfer encoding mode, in which the selected encoded video frames for the fast search operation are transported in respective chunks, wherein each chunk includes one complete respective selected encoded video frame in a second part and information about a starting time, as located in the original encoded video stream, of the respective selected video frame in a first part, wherein the second part is different from the first part and the information about a starting time of the respective selected video frame being positioned in a commentary line of the first part" as recited in amended claim 1 of the present arrangement.

In addition, contrary to the assertion in the Office Action, Hurst, similar to Stewart, does not teach or suggest sending a complete video frame in a single chunk and thus cannot teach or suggest "discontinuous transmission, in sections, of selected video frames of an original encoded video stream from the source appliance to a destination appliance in a HTTP response using an extended HTTP chunked transfer encoding mode, in which the selected encoded video frames for the fast search operation are transported in respective chunks, wherein each chunk includes one complete respective selected encoded video frame in a second part and information about a starting time, as located in the original encoded video stream, of the respective selected video frame in a first part, wherein the second part is different from the first part and the information about a starting time of the respective selected video frame being positioned in a commentary line of the first part" as recited in amended claim 1 of the present arrangement. The Office Action cites column 3, lines 52-56 of Hurst to assert that Hurst describes dividing a video stream into chunks, where each chunk contains one or more video frames. Applicant respectfully disagrees. Figure 1 of Hurst clearly shows that a chunk with MPEG data consists of only a portion of a video frame. The Office Action misinterprets the cited text passage:

"Specifically, the MPEG data from the three splicing segments SS 1-SS3 of MPEG transport stream 110 is distributed as 'chunks' of data comprising ones or more MPEG frames over, illustratively, 14 frames FI-F14 of the SDTI bitstream 120."

The above passage, when taken with Figure 1 which it describes, clearly indicates that MPEG data from the three splicing segments SS1-SS3 is comprised of one or more frames and is distributed as chunks of data. Figure 1 of Hurst clearly shows that the chunks consist only of a portion of the frames FI-F14. Therefore, Hurst does not teach or suggest sending a complete video frame in a single chunk and thus cannot teach or suggest " ... each chunk includes one complete respective selected encoded video frame in a second part and information about a starting time, as located in the original encoded video stream, of the respective selected video frame in a first part ... " as recited in amended claim 1 of the present arrangement.

DeMoney describes a system and method for indexing between video streams in an interactive video delivery system which stores video streams having different presentation rates. The system stores a normal play stream and one or more corresponding trick play streams. The trick play streams are fast forward and/or fast reverse video streams. The system generates index tables or look-up tables between the normal play and trick play video streams which enable indexing between the streams, and uses these look-up tables to switch back and forth between the streams. In creating the index tables, the system first analyzes the normal play stream and creates a normal play time standard based on presentation timestamps from the normal play stream. The system then creates an index table or look-up table for each of the normal play and trick play video streams using the normal play time standard.

During video delivery, the system uses the respective index tables to switch back and forth between the normal play and trick play video streams (see Abstract).

However, DeMoney, similar to Stewart and Hurst, fails to teach or suggest "discontinuous transmission, in sections, of selected video frames of an original encoded video stream from the source appliance to a destination appliance in a HTTP response using an extended HTTP chunked transfer encoding mode, in which the selected encoded video frames for the fast search operation are transported in respective chunks, wherein each chunk includes one complete respective selected encoded video frame in a second part and information about a starting time, as located in the original encoded video stream, of the respective selected video frame in a first part, wherein the second part is different from the first part and the information about a starting time of the respective selected video frame being positioned in a commentary line of the first part" as recited in amended claim 1 of the present arrangement. DeMoney describes presentation time stamps in an MPEG encoded stream and a method for indexing between related video streams such as between normal and trick play streams (see DeMoney, column 5, lines 53-54). However, unlike the present claimed arrangement, DeMoney is silent regarding the insertion of time position in a commentary line during chunked transfer encoding mode. The sequence header in DeMoney includes timestamps as an integrated part of the MPEG stream (see DeMoney, column 3, lines 22-44). DeMoney's MPEG stream time stamp information is part of a sequence header that includes a plurality of different information items. In DeMoney, the information in the sequence header can only be derived when parsing and decoding the stream. Therefore, unlike the present claimed arrangement, in order to extract the timestamp information from the MPEG stream in DeMoney, it becomes necessary to parse header information and flag information before the location of the timestamp information can be identified. The present invention advantageously puts the additional time position information in the commentary line during chunked transfer encoding, allowing the information to be more readily available for more accurate mode transitions. Therefore, DeMoney, similar to Stewart and Hurst, does not teach or suggest "discontinuous transmission, in sections, of selected video frames of an original encoded video stream from the source appliance to a destination appliance in a

HTTP response using an extended HTTP chunked transfer encoding mode, in which the selected encoded video frames for the fast search operation are transported in respective chunks, wherein each chunk includes one complete respective selected encoded video frame in a second part and information about a starting time, as located in the original encoded video stream, of the respective selected video frame in a first part, wherein the second part is different from the first part and the information about a starting time of the respective selected video frame being positioned in a commentary line of the first part" as recited in amended claim 1 of the present arrangement.

Additionally, it is not proper to combine the cited references. Hurst teaches the preservation of splicing elements having MPEG frames that have In-point and Out-point delimiters to achieve "seamless splicing." The preservation of splicing segments in Hurst teaches away from the discontinuous nature of fast forward (fast search) frame discontinuities of Stewart and DeMoney. Therefore, one of skill in the art would not be motivated to combine the teachings of Stewart and DeMoney with Hurst.

However, even if Stewart, Hurst and DeMoney were combined, the combination, similar to the individual systems, neither teaches nor suggests the features of the present claimed arrangement. Specifically, the combination of Stewart, Hurst and DeMoney, similar to the individual systems as discussed above, neither teaches nor suggests "discontinuous transmission, in sections, of selected video frames of an original encoded video stream from the source appliance to a destination appliance in a HTTP response using an extended HTTP chunked transfer encoding mode, in which the selected encoded video frames for the fast search operation are transported in respective chunks, wherein each chunk includes one complete respective selected encoded video frame in a second part and information about a starting time, as located in the original encoded video stream, of the respective selected video frame in a first part, wherein the second part is different from the first part and the information about a starting time of the respective selected video frame being positioned in a commentary line of the first part" as recited in amended claim 1 of the present arrangement. Additionally, DeMoney only discusses an original MPEG stream but fails to discuss generation of a fast forward or fast search stream derived from the original MPEG data stream. Therefore, unlike the present claimed arrangement, the combination of Stewart, Hurst and DeMoney, similar to the individual systems, would not teach or suggest how to generate a discontinuous transmission of selected original encoded video frames for a fast search operation. The combination of Stewart, Hurst and DeMoney would only produce a method for streaming data from a server to a client without breaking the connection and providing relatively seamless splicing of information sub-streams with presentation time stamps as an integrated part of the MPEG stream. Thus, the combination of Stewart, Hurst and DeMoney, similar to the individual systems, neither teaches nor suggests the features of amended claim 1 of the present arrangement.

Applicant respectfully submits that Stewart, Hurst and DeMoney, taken alone or in any combination, fails to render obvious pending amended independent claim 1 under 35 U.S.C. §103(a) since all elements of the claims are not taught or suggested by the cited references. Likewise dependent claims 3, 7 and 9 are also not obviated by the cited combination of prior art per MPEP §2143.03.

Ex. D at 311-318 (2011-04-20 Amendment at 7-14).

96. In response to the applicant's explanation as to how claim 1 was not obvious over the cited art, the Examiner allowed claim 1. Ex. D at 333-334 (2012-02-14 Notice of Allowance). The Examiner stated that "Applicant's arguments filed 4/20/2011, with respect to the rejection of claims 1, 3, 4, 7-10, 13 and 15-18 have been fully considered and are persuasive. Accordingly, those rejections have been withdrawn. . . . Claims 1, 3, 4, 7-10, 13 and 15-18 are allowed." *Id.*

97. The Examiner's agreement with the applicant's arguments that claim 1, as amended in the April 20, 2011, Amendment, is patentable over the art demonstrates that the subject matter of claim 1 included an inventive concept and was not well-understood, routine, or conventional as of the filing date of the '828 patent. This is in keeping with the Examiner's duty to "search[] existing technology for the inventions recited in the claims of the application" and "determin[e] the patentability of the claims," thereby "ensur[ing] an Applicant receives a patent only for that which they are entitled to in accordance with Patent laws." Ex. G at 8.

98. As detailed in the allegations above, the specification and prosecution history of the '828 patent show that claim 1, as amended in the April 20, 2011, Amendment (and as reflected in the issued claim), was unconventional at the time of filing of the '828 patent. Stated differently, and as detailed above, already available computers, with their available functions, did not provide the process recited in claim 1 of the '828 patent.

COUNT I – INFRINGEMENT OF THE '752 PATENT

99. Plaintiff realleges and incorporates by reference the allegations set forth above, as if set forth verbatim herein.

100. Defendant has been and is now making, using, selling, offering for sale, and/or importing products and/or services that incorporate one or more of the inventions claimed in the '752 patent.

101. For example, Defendant infringes at least claims 1 and 14 of the '752 patent, either literally or under the doctrine of equivalents, in connection with Defendant's utilization of HLS for delivery of video content, including in its internal usage and testing of accuweather.com and to customers and viewers of accuweather.com, as detailed in the preliminary claim chart attached hereto as Exhibit E and incorporated herein by reference.

102. Defendant's infringing activities are and have been without authority or license under the '752 patent.

103. Plaintiff has been damaged by Defendant's infringement of the '752 patent, and Plaintiff is entitled to recover damages for Defendant's infringement, which damages cannot be less than a reasonable royalty.

COUNT II – INFRINGEMENT OF THE '828 PATENT

104. Plaintiff realleges and incorporates by reference the allegations set forth above, as if set forth verbatim herein.

105. Defendant has been and is now making, using, selling, offering for sale, and/or importing products and/or services that incorporate one or more of the inventions claimed in the '828 patent.

106. For example, Defendant infringes at least claim 1 of the '828 patent, either literally or under the doctrine of equivalents, in connection with Defendant's utilization of HLS

for delivery of content, including in its internal usage and testing of accuweather.com and to customers and viewers of accuweather.com, as detailed in the preliminary claim chart attached hereto as Exhibit F and incorporated herein by reference.

107. Defendant's infringing activities are and have been without authority or license under the '828 patent.

108. Plaintiff has been, and continues to be, damaged by Defendant's infringement of the '828 patent, and Plaintiff is entitled to recover damages for Defendant's infringement, which damages cannot be less than a reasonable royalty.

JURY DEMAND

Plaintiff demands a trial by jury of all issues so triable.

PRAYER FOR RELIEF

Plaintiff respectfully requests that the Court find in its favor and against Defendant, and that the Court grant Plaintiff the following relief:

- A. Entry of judgment that Defendant has infringed one or more claims of the '752 patent,
- B. Entry of judgment that Defendant has infringed one or more claims of the '828 patent,
- C. Damages in an amount to be determined at trial for Defendant's infringement, which amount cannot be less than a reasonable royalty,
- D. Pre-judgment and post-judgment interest on the damages assessed, and
- E. That the Court declare this to be an exceptional case and award Plaintiff its reasonable attorneys' fees and expenses in accordance with 35 U.S.C. § 285, and
- F. Such other and further relief, both at law and in equity, to which Plaintiff may be entitled and which the Court deems just and proper.

This 23rd day of April, 2023.

/s/ Cortney S. Alexander

Cortney S. Alexander

(GA Bar 142690)

(admitted pro hac vice)

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